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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
YUKAKO FUJIWARA : EXAMINER: ROGERS, JUNE M.  
SERIAL NO: 10/518,549 :  
FILED: JANUARY 3, 2005 : GROUP ART UNIT: 1614  
FOR: VESICLE DISPERSION AND :  
COSMETIC CONTAINING THE SAME :

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes YUKAKO FUJIWARA who states that:

1. I am a named inventor of the above-identified application.
2. I have been employed by KOSÉ CORPORATION for 15 years as a scientific researcher in the field of COSMETIC PRODUCTS.
3. I understand the English language, or at least the contents of the Declaration were made clear to me prior to executing the same.
4. The comparative experimental data presented in the following Table demonstrates that superior properties of suppressed sphingosine crystal deposition and improved stability are achieved by a composition in accordance with the present invention comprising the claimed vesicle dispersion comprising a *branched* fatty acid having a melting point of 80°C or less, as compared to the inferior properties exhibited by a conventional composition comprising a *straight* chain fatty acid having a melting point of 80°C or less.

## 5. Experimental Results

Table A

| No. Component                 | Additional Example<br>(Invention Composition) | Additional Comparative<br>Example (%) |
|-------------------------------|---|---------------------------------------|
|                               | 1   | 1                                     |
| 1 Ceramide *1                 | 0.1   | 0.1                                   |
| 2 Isostearic acid             | 0.1   | -                                     |
| 3 Stearic acid                | -   | 0.1                                   |
| 4 Sucrose fatty acid ester *2 | 0.5   | 0.5                                   |
| 5 Dipropylene glycol          | 4   | 4                                     |
| 6 Purified water              | 10.3  | 10.3                                  |
| 7 1,3-Butylene glycol         | 6   | 6                                     |
| 8 Glycerin                    | 5   | 5                                     |
| 9 Citric acid                 | 0.1   | 0.1                                   |
| 10 Sodium citrate             | 0.2   | 0.2                                   |
| 11 Purified water             | Balance                                       | Balance                               |
| 12 POE(30) bhenyl ether       | 0.5   | 0.5                                   |
| 13 Methyl p-oxybenzoate       | 0.2   | 0.2                                   |
| 14 Ethyl alcohol              | 8   | 8                                     |
| Evaluation item and results   |   |                                       |
| a. Dispersion stability       | ◎   | ×                                     |
| b. Moisturizing effect        | ◎   | ○                                     |
| c. Non-stickiness             | ◎   | ◎                                     |
| d. Change in odor             | ○   | ○                                     |

\*1: Ceramide 2

\*2: DK ester S-160 (Dai-ichi Kogyo Seiyaku Co., Ltd.)

A: Components 1-3 were heated and mixed at 90°C.

B: Component 4 was dispersed in component 5, and then mixed with A, and the mixture was heated at 70°C.

C: B was added to Component 6 heated at 70°C, the mixture was dispersed with stirring, and the resulting mixture was cooled.

D: Components 7-11 were mixed and dissolved, and C was added to the solution.

E: Components 12 to 14 were mixed and dissolved, and the solution was added to D to obtain a vesicle face lotion.

Evaluation standard for evaluation item a.

◎: Neither crystal deposition nor turbidity were observed at all.

○: Almost no crystal deposition and turbidity were observed.

△: Slight crystal deposition and turbidity were observed.

×: Crystal deposition and turbidity were clearly observed.

6. This evidence clearly illustrates that superior properties with respect to suppressed sphingosine crystal deposition and improved stability are remarkably exhibited by incorporating the claimed vesicle dispersion comprising a *branched* fatty acid having a melting point of 80°C or less, such as isostearic acid, into a composition in accordance with the present invention and exemplified in Example 1, as compared the inferior properties exhibited by the conventional composition of Comparative Example 1, which comprises a *straight* chain fatty acid having a melting point of 80°C or less, such as stearic acid.

7. While wishing not to be bound to any particular theory, I believe that among branched and straight chain fatty acids and higher alcohols having a melting point of 80°C or less, those having a branched chain exhibit superior properties with respect to suppressed sphingosine crystal deposition and improved stability of the composition due to enhanced mutual solubility with sphingosine and derivatives thereof, such as ceramide.

8. In my opinion, Examples similar in composition to Example 1 above, but comprising, in place of isostearic acid, other branched fatty acids having a melting point of 80°C or less and/or branched higher alcohols having a melting point of 80°C or less, would exhibit comparable properties with respect to those of Example 1 above, with respect to suppressed sphingosine crystal deposition and improved stability. I am aware of no reason to believe otherwise.

9. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Yutako Fujiwara  
Signature

March 11, 2008  
Date